

**ABSTRACT**

The present invention provides a method for the simultaneous identification of two or more single base changes in a plurality of target nucleotide sequences that are markers associated with cardiovascular diseases such as deep vein thrombosis and the like. Multiplex detection is  
10 accomplished using multiplexed tagged allele specific primer extension (ASPE) and hybridization of such extended primers to a probe, preferably an addressable anti-tagged support